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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,949	02/28/2007	Yoshiyuki Sata	Q94347	7324

23373 7590 11/24/2010

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EXAMINER	
ROGERS, MARTIN K	

ART UNIT	PAPER NUMBER
1747	

NOTIFICATION DATE	DELIVERY MODE
11/24/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/574,949	SATA, YOSHIYUKI	
	Examiner	Art Unit	
	MARTIN ROGERS	1747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 October 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) *1,2 and 5-10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3, 4, 11, and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryo (Japanese Kokai 2001-179847 already of record) in view of Olbert et al. (USP 3853653), and Hirai et al. (WO 2002/078939) or Laurent (USP 4963207), and Rex et al. (WO 2001/03912). Note that Pre-Grant Publication 2004/0013654 is an English language equivalent of the WO 2002/078939 document and is referred to by the examiner to make the rejections below.

In regards to claim 1, Ryo discloses an apparatus for making a preset bead [0001] in which the a bead core holding device in the shape of a disk 3 rotates the bead core (Drawing 3: curved arrow) to wind and laminate a ribbon [0019] which is provided from an extruder ([0024]) to create a bead with a filler formed on it (Figure 4). Although Ryo does not expressly disclose that the beads are provided to radially outward positions on a carcass band on the both ends of the carcass are turned around the beads to build the tire, such is conventional in the tire-building art, as evidenced for example by Figures 1-5 of Olbert. Therefore, one of ordinary skill in the art at the time of

the invention would have found it obvious to use the beads and bead fillers created by the invention of Ryo in a tire-manufacturing process carried out by the steps required by Applicant because the tire-building steps required by Applicant are conventional in the art, as disclosed by Olbert.

Although Ryo discloses that the ribbon needs to be laminated to the building surface ([0023]) and that a roller head extruder can be used to create the ribbon ([0024]), it is not clear from the disclosure of Ryo whether or not a roller is used to press the ribbon during the winding operation.

Hirai discloses that by using a roller 24 adjacent to the extrusion nozzle to press the ribbon, the ribbon can be accurately placed ([0085]). Hirai further discloses the use of a flattening roller 25 slightly downstream of the extruder and adjacent to the laying surface which provides the benefit of removing air from the laminate ([0086]). Hirai suggests that the benefits of these rollers are relevant to extrusion processes which are used to form the bead of a tire ([0006]-[0007]). Luarent discloses that the use of a roller in a strip-winding operation provides the benefit of facilitating the adherence of the wound strip (Column 5, lines 30-334). Laurent suggests to one of ordinary skill in the art that this extrusion configuration is beneficial for winding operations used to form the bead of a tire (Column 6, lines 28-29). Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to use a roller during the laminating process of the previous combination for the benefit of increasing the accurately of the laying operation or removing air from the laminate (as disclosed by Hirai) or for increasing the adherence of the laying operation (as disclosed by Laurent).

The above combination does not disclose a bead-removing device for removing the bead from the disk.

Rex discloses that the act of removing a bead from a forming surface can be facilitated through the use of a bead-removing device which moves perpendicularly to the forming surface ((Figure 3: 28) (Page 4, lines 12-13). Therefore, one of ordinary skill in the art would have found it obvious to use a bead-removal mechanism after the bead and filler had been formed and pressed against the disk of the above combination for the benefit of facilitating the ejection of the bead which as been formed and pressed against a forming surface (as disclosed by Rex).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the previous combination of Ryo (Japanese Kokai 2001-179847 already of record) in view of Olbert et al. (USP 3853653), and Hirai et al. (WO 2002/078939) or Laurent (USP 4963207), and Rex et al. (WO 2001/03912) as applied to claim 3 above, and further in view of Urayama (USP 6182731). Note that Pre-Grant Publication 2004/0013654 is an English language equivalent of the WO 2002/078939 document and is referred to by the examiner to make the rejections below.

In regards to claim 4, Hirai further discloses a positioning device for the rollers (Figure 4: x, y, θ for roller 24 and dashed line "e" for roller 25). Laurent also discloses a controlling mechanism for the position of the roller (Figure 1: 16). The previous combination does not disclose how the core is held on the building surface, suggesting

to one of ordinary skill in the art that any well known method for securing the bead core would be suitable.

Urayama discloses that it is known to hold a bead in position with magnets and then use actuated arms to center the bead on a holding device (Column 4, lines 25-34). Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to use magnets and a centering device to hold the bead in the desired position on the forming surface of the previous combination because this is a well known method of securing a bead in a desired position on a support (as disclosed by Urayama).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the previous combination of Ryo (Japanese Kokai 2001-179847 already of record) in view of Olbert et al. (USP 3853653), and Hirai et al. (WO 2002/078939) or Laurent (USP 4963207), and Rex et al. (WO 2001/03912) as applied to claim 3 above, and further in view of Sasaki et al. (USP 4985100).

In regards to claim 11, the previous combination does not disclose using multiple rotatably supported disks to build the beads.

Sasaki discloses that by using two rotatably supported forming surface which are rotated by a turret (Figure 1: 2), the act of forming a component on the building surface by winding (Figure 1: 6 and Y) can occur simultaneously with the act of loading a preform onto the building surface (Figure 1: 5) or removing a finished product from the building surface (Figure 1: 9). A skilled artisan would appreciate that by performing

steps simultaneously, production efficiency is increased, which increases output and saves costs. Therefore, in order to increase output and save costs, one of ordinary skill in the art at the time of the invention applying the teachings of Sasaki to the specific tire component being created by the previous combination would have found it obvious to use two forming surfaces which are supported by a turret so that multiple steps of the bead-forming an bead-transporting process could be performed simultaneously (as disclosed by Sasaki). The examiner notes that the combination of references requires that the second disk be in contact with the pressure roller when it is positioned at the bead filler winding workstation.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the previous combination of Ryo (Japanese Kokai 2001-179847 already of record) in view of Olbert et al. (USP 3853653), and Hirai et al. (WO 2002/078939) or Laurent (USP 4963207), Rex et al. (WO 2001/03912) and Sasaki et al. (USP 4985100) as applied to claim 11 above, and further in view of Cornet et al. (Pre-Grant Publication 2002/0179227).

In regards to claim 12, the previous combination does not disclose the use of magnets or a centering device.

Cornet discloses that by using bead holding magnets (Figure 5: 65) and a centering device which applies a force to the inner circumference of the bead (Figure 5: 16), the bead can be held in a centered and non-distorted orientation ([0023] and

[0025]). Therefore, one of ordinary skill in the art at the time of the invention would have found it obvious to use the magnets and centering devices required by the claim on the bead-holder of the above combination for the benefit of keeping the be centered and non-distorted (as disclosed by Cornet).

Response to Arguments

Applicant's arguments with respect to claim 3 has been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARTIN ROGERS whose telephone number is 571-270-7002. The examiner can normally be reached on Monday through Thursday, 7:30 to 5:00, and every other Friday, 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin Rogers/

/Richard Crispino/
Supervisory Patent Examiner, Art Unit 1747